

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001636**Date Inspected:** 18-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) and Tower Mock Up:

CWI Inspectors: Mr. Wu Ming Kai, Xu Xing

North Tower Fabrication Shop:

The QA Inspector observed ZPMC welder Mr. Lei Lichao stencil 53619 is using welding procedure WPS-B-T-2133 using the flux cored process to make a temporary fillet weld on elevation 89 meter tower mockup MUB-MA21 adjacent to weld joint MUB-MA21-J/J-20. The QA Inspector observed the base material has been preheated to a minimum of 160°C and a welding current of approximately 190 amps and 24.5 volts. This temporary weld is attaching a rigging device that will be used to align weld joint MUB-MA21-J/J-20. A steel wedge was then used to position the edges of the two sides of the complete joint penetration weld. Following insertion of the steel wedge the Inspector observed the weld joint fit up appears to comply with the requirements of WPS-B-T-2232-TC-U4b-F. ZPMC then installed electric heating elements adjacent to this weld joint. Items observed by the QA Inspector appear to comply with project specifications.

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The QA Inspector observed ZPMC personnel perform heat straightening of OBG side plate SP062 as directed by HSR1(B)-192. This HSR has been approved by Mr. Hu Gang on 01-28-2008. The QA inspector observed Quality Control Inspector Mr. Duan Yabing monitoring the heat temperature using a laser indicating device and the maximum temperature that Mr. Yabing had recorded is 543°C. ZPMC normally uses a large metal counterweight to apply a downward force on the plate that is being flame straightened and today ZPMC is using side panel SP055 assembly instead of the normally used counterweight on top of SP062 during this flame straightening. Note: the sketch on the HSR document shows a counterweight being used instead of a second side plate assembly. See the photograph below for additional information.



Summary of Conversations:

See above for summary of conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
